

# Section A Executive Summary

#### INTRODUCTION

his section of the report is intended to provide Management with an executive-level summary of the most noteworthy performance information to date. All information is current as of the end of March 2002 unless otherwise noted.

The section begins with a description of notable accomplishments that have occurred since the last monthly report and are considered to have made the greatest contribution toward safe, timely, and cost-effective clean up. Following the accomplishment section is an overall fiscal year-to-date summary analysis addressing cost, schedule, and milestone performance. Also included in this section is a contract to date performance table. Overviews of safety ensue. The next segment of the Executive Summary, entitled Breakthroughs and Opportunities for Improvement represents potential significant improvements over the established baseline. The Critical Issues section is designed to identify the high-level challenges to achieving cleanup progress.

The next section includes FY 2002 EM Management Commitment Milestones and Performance Incentives.

Concluding the Executive Summary, a forward-looking synopsis of Upcoming Planned Key Events is provided.

Note: Milestones tracked and reported in the Executive Summary are FY2002 Contract Milestones and consist of two Department of Energy levels. In descending order these levels are 1) Department of Energy-Headquarters (HQ), and 2) Richland Operations (RL). Because it is also useful to distinguish milestones based on specific drivers, the Site applies a designation for those milestones created or tracked to meet the requirements of Enforceable Agreements (EAs). When a milestone satisfies both an EA requirement and a milestone level, it is categorized as both. However, in order to avoid duplicate reporting, this report accounts for each milestone only once. Where an overlap exists between EA and a level (i.e., HQ or RL), the milestone is reported as EA. Additionally, Tri-Party Agreement (TPA) Major and Interim milestones are EA milestones. TPA milestones that are not enforceable are called Target milestones and are included in the milestone tables found in the applicable Project Sections. These tables include FY2002 through FY2006 milestones.

#### **NOTABLE ACCOMPLISHMENTS**

**Spent Nuclear Fuel (SNF) Movement Activities** 3/4 During this reporting period, six Multi-Canister Overpacks (MCOs) containing 28.01 Metric Tons of Heavy Metal (MTHM) were shipped from K West (KW) (53 MCOs and 248.56 MTHMs, cumulatively). To date, the Spent Nuclear Fuel (SNF) Project is 38 working days (18 MCOs, 84.18 MTHM) behind the baseline schedule commitment to move 720.1 MTHM by the end of FY 2002.

#### **Stabilization of Nuclear Material**

**Residues** — All remaining Pipe Overpack containers (POCs) containing Hanford ash were shipped to the Central Waste Complex (CWC). The last shipment was completed on March 7, 2002 completing Tri Party Agreement (TPA) milestone M-83-09 nearly five months ahead of schedule. Additionally, 253,535 grams of Sand, Slag, and Crucible (SS&C) were packaged into 40 Pipe Overpack Containers (POCs) during March.

**Solutions** 3/4 The final eight drums of direct discard material were shipped to the Central Waste Complex in early March, resulting in completion of the March 31, 2002, TPA milestone (TRP-02-505) ahead of schedule. The monthly production for the Solutions Stabilization Project was 310 liters.

**Project W-460**  $^{3}4$  The final phase of Project W-460, including a new enhanced security entrance into the 2736-ZB building and the establishment of a new Material Access (Security) area is complete. New search and access controls have been implemented which complete DOE Safeguards and Security protection requirements for this facility. This project was completed nearly one year early with a capital savings in excess of \$1.0M.

**Thermal Stabilization & Bagless Transfer System (BTS)** <sup>3</sup>/<sub>4</sub> In March, two (2) Bagless Transfer Containers (BTC) were welded and fifty-eight furnace runs were completed. A total of 508 BTCs have been produced in the 234-5Z facility as of the end of March.

#### PERFORMANCE DATA AND ANALYSIS

he following provides a brief synopsis of overall PHMC Environmental Management (EM) cost, schedule, and milestone performance.

#### FY 2002 Schedule and Cost Performance

**Schedule Performance** — There is a FY 2002 year-to-date 2.6 percent (\$6.6 million) unfavorable schedule variance that is within the established 10 percent threshold. The 300 Area Facility Transition and 200 Area Remediation subprojects are outside the threshold. Detailed variance analysis explanations can be found in the applicable section.

**Cost Performance** — FY 2002 year-to-date cost performance reflects a 0.5 percent (\$1.1 million) unfavorable cost variance that is within the established 10 percent threshold. Subprojects outside the threshold are 300 Area Cleanup, Advanced Reactor Transition, River Corridor Waste Management, 200 Area Remediation, Plutonium Finishing Plant, Landlord & Site Services, and Near Term Stewardship. Detailed variance analysis explanations can be found in the applicable sections.

# BASELINE PERFORMANCE STATUS FY 2002 COST / SCHEDULE PERFORMANCE – ALL FUND TYPES FY TO DATE STATUS (\$M) (FLUOR HANFORD, INC. ONLY)

#### **DATA THROUGH MARCH 2002**

		Cu	Current Fiscal Year Performance (\$ x Million)								
			FYTD		Schedule	Cost	Annual Budget				
		BCWS	BCWP	ACWP	Variance	Variance	Buagei				
River Cor	ridor Restoration										
3.1.2	300 Area Cleanup RC02	0.6	0.6	0.5	0.0	0.1	1.4				
3.1.3	Advanced Reactor Transition RC03	0.8	0.8	0.6	0.0	0.2	1.9				
3.1.5	River Corridor Waste Mgmt. RC05	1.8	1.7	1.5	(0.1)	0.2	3.9				
3.1.6	300 Area Facility Transition RC06	20.7	17.6	18.4	(3.1)	(0.8)	43.9				
_	ubtotal Restoration ridor Final Closure and SNF	23.9	20.7	21.0	(3.2)	(0.3)	51.1				
3.2.3	Spent Nuclear Fuel RS03	83.8	81.7	84.8	(2.1)	(3.1)	171.6				
Subtotal SNF		83.8	81.7	84.8	(2.1)	(3.1)	171.6				
Central P	lateau Transition										
3.3.1	200 Area Remediation CP01	3.6	3.0	2.3	(0.6)	0.7	15.9				
3.3.2	Waste Management CP02	36.8	37.1	36.7	0.3	0.4	81.4				
3.3.3	Plutonium Finishing Plant CP03	42.3	43.3	38.3	1.0	5.0	81.5				
	ubtotal Central Plateau	82.7	83.4	77.3	0.7	6.1	178.8				
Site Integ	jation & Infrastructure										
3.4.1	Site Integration	14.4	14.5	14.1	0.1	0.4	29.8				
3.4.2	Landlord & Site Services SS02	41.9	39.6	44.1	(2.3)	(4.5)	92.9				
3.4.5	HAMMER SS05	2.3	2.5	2.3	0.2	0.2	4.8				
S Site Stew	ubtotal Site Integration rardship	58.6	56.6	60.5	(2.0)	(3.9)	127.5				
3.5.1	Near Term Stewardship	0.4	0.4	0.3	0.0	0.1	0.9				
s	ubtotal Stewardship	0.4	0.4	0.3	0.0	0.1	0.9				
	Total PHMC Projects	249.4	242.8	243.9	(6.6)	(1.1)	529.9				

**Notes:** Column headings [Budgeted Cost of Work Scheduled (BCWS), Budgeted Cost of Work Performed (BCWP), etc.] are defined in the glossary at the end of the report. The data is from the Hanford Data Integrator (HANDI) reports. The Annual Budget is FY2002 worksope only and does not include prior year scope. Additionally, some scope transfers that will occur in June 2002 are not reflected in the Annual Budget (e.g., CP01 has the scope transfer, SS03 and SS04 do not).

## BASELINE PERFORMANCE STATUS CONTRACT TO DATE (\$M) (FLUOR HANFORD, INC. ONLY)

The following table portrays the Fluor contract to date cost and schedule performance.

#### **DATA THROUGH MARCH 2002**

	(	Contract				
		CTD		Schedule	Cost	Period
	BCWS	BCWP	ACWP	Variance	Variance	Budget
River Corridor Restoration						
3.1.2 <b>300 Area Cleanup</b> RC02	1.8	1.7	1.7	(0.1)	0.0	33.4
3.1.3 Advanced Reactor Transition  RC03	2.6	2.5	1.9	(0.1)	0.6	7.6
3.1.5 River Corridor Waste Mgmt.  RC05	6.2	6.1	5.5	(0.1)	0.6	27.2
3.1.6 <b>300 Area Facility Transition</b> RC06	66.2	62.1	61.0	(4.1)	1.1	342.0
Subtotal Restoration	76.8	72.4	70.1	(4.4)	2.3	410.2
River Corridor Final Closure and SNF						
3.2.1 S. Hanford Industrial Area	0.0	0.0	0.0	0.0	0.0	6.4
3.2.3 Spent Nuclear Fuel	260.6	252.4	251.5	(8.2)	0.9	639.3
Subtotal SNF	260.6	252.4	251.5	(8.2)	0.9	645.7
Central Plateau Transition						
3.3.1 200 Area Remediation	9.6	8.4	7.9	(1.2)	0.5	204.1
3.3.2 Waste Management CP02	140.8	136.6	131.9	(4.2)	4.7	607.6
3.3.3 Plutonium Finishing Plant CP03	149.8	143.8	141.9	(6.0)	1.9	457.1
Subtotal Central Plateau	300.2	288.8	281.7	(11.4)	7.1	1268.8
Site Integation & Infrastructure				. ,		
3.4.1 Site Integration SS01	31.5	31.2	30.0	(0.3)	1.2	175.5
3.4.2 Landlord & Site Services SS02	92.8	89.5	93.1	(3.3)	(3.6)	537.8
3.4.5 <b>HAMMER</b> SS05	8.6	8.5	8.0	(0.1)	0.5	29.2
Subtotal Site Integration	132.9	129.2	131.1	(3.7)	(1.9)	742.5
Site Stewardship						
3.5.1 Near Term Stewardship SC01	1.5	1.5	0.8	0.0	0.7	5.1
Subtotal Stewardship	1.5	1.5	0.8	0.0	0.7	5.1
Total PHMC Projects	772.0	744.3	735.2	(27.7)	9.1	3072.3

**Notes:** Contract period budget reflects the contractual funding profile (FY01 – FY06), plus/minus approved Baseline Change Requests. However, planned scope transfers from/to the River Corridor Contractor will be included once the transfers take place.

### FUNDS MANAGEMENT FUNDS VS. ACTUAL COSTS (\$000)

This chart reflects FH Project structure. This breakout is necessary to provide FH project managers with information specific to their areas of responsibility and accountability and to facilitate effective management of the funds within their control (obligated to the PHMC). Consequently, these figures will differ from those shown elsewhere (as generated in the PEM system).

The PHMC is currently evaluating a potential combined overrun of nearly \$5M in the Project Completion and Post 2006 control points. However, the fiscal year spend forecasts (FYSFs) do not include specific actions (including subcontract reductions, work scope deferrals, and designated off ramps) identified to ensure that funding control points are not violated. Decisions as to which actions should be implemented will be made by the end of April. In addition, an internal reprogramming action is necessary to address excess funding remaining in the W-460 Line Item and may be required to align funds to the FH Allocation by PBS.

For purposes of funds management, the "Other" category includes all funding sources not suitable for redistribution within the Project Completion and Post 2006 control points.

					FI	H Allocatio	on	RL Alloca	ition
Project	PBS	Total Expected Funds	FH Allocation	March FYSF	Project Completion	Post 2006	Other	Project Completion	Post 2006
Spent Nuclear Fuel	RS03	\$181,993	\$177,894	\$179,494	(\$1,600)			\$2,499	
Nuclear Material Stabilization	CP03	\$73,623	\$82,214	\$82,230	(\$16)			(\$8,607)	
	CP03	\$2,264	\$572	\$568	\$4			\$1,696	
Subto	tal NMS	\$75,887	\$82,786	\$82,798	(\$12)			(\$6,911)	
River Corridor	RC06	\$38,940	\$38,865	\$37,931	\$935			\$1,010	
	RC02	\$1,373	\$1,124	\$1,089		\$35			\$284
	RC05	\$2,968	\$3,368	\$3,231		\$137			(\$263)
	RC01	\$2,790	\$2,779	\$2,790		(\$11)			\$0
	CP01	\$11,074	\$17,707	\$17,774		(\$67)			(\$6,700)
	RS01	\$80	\$80	\$80		\$0			\$0
	SS03	\$1,200	\$0	\$0		\$0			\$1,200
	SS04	\$1,724	\$1,724	\$1,724		\$0			\$0
Subto	tal RCP	\$60,149	\$65,647	\$64,618	\$935	\$94		\$1,010	(\$5,479)
Waste Management	CP02	\$79,523	\$77,353	\$78,582	(\$1,229)			\$941	
HSO	SS02	\$92,967	\$89,683	\$91,751	(\$2,068)			\$1,216	
HAMMER	SS05	\$5,631	\$4,942	\$4,906		\$36			\$725
Site Integration	SS01	\$28,507	\$27,393	\$27,427		(\$34)			\$1,080
Near Term Stewardship SC01		\$800	\$800	\$808		(\$8)			(\$8)
Funding Allocation \	/ariance		(\$1,041)			(\$1,041)			
TOTAL EXPENSE		\$525,457	\$525,457	\$530,384	(\$3,975)	(\$953)		(\$1,246)	(\$3,682)

#### MILESTONE PERFORMANCE

Milestones represent significant events in project execution. They are established to provide a higher level of visibility to critical deliverables and to provide specific status about the accomplishment of these key events. Because of the relative importance of milestones, the ability to track and assess milestone performance provides an effective tool for managing the PHMC EM cleanup mission. These milestones are consistent with the FH contract.

FYTD milestone performance (Enforceable Agreement [EA], U.S. Department of Energy- Headquarters [DOE-HQ], and RL) shows that five milestones were completed on or ahead of schedule, one milestone was completed late, and two milestones are overdue.

In addition to the FY2002 milestones described above, there is one overdue milestone from FY2001 [PFP (Section J)]. Further details regarding this milestone may be found in the referenced Project Section.

FY 2002 information is depicted graphically on the following page. For additional details related to the data, prior year milestones, and outyear milestones, refer to the relevant project section titled "Milestone Achievement."

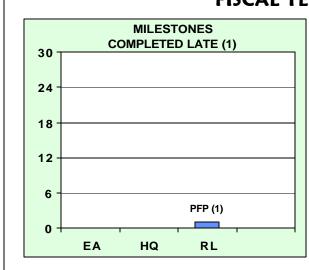
FY 2002 information reflects the September 30 Baseline. Changes in both the number and type of milestones from month to month are the result of Baseline Change Requests (BCRs) approved during the year.

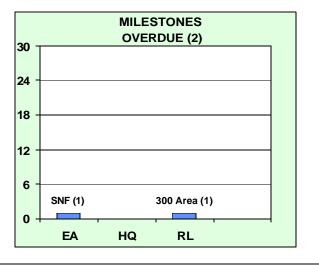
### TOTAL ALL HANFORD PROJECTS MILESTONE ACHIEVEMENT FH Contract Milestones

	F	ISCAL YEA	R-TO-DATE		REMA			
MILESTONE TYPE	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	Total FY 2002
Enforceable Agreement	4	0	0	1	0	0	0	5
DOE-HQ	0	0	0	0	0	0	2	2
RL	1	0	1	1	0	4	4	11
Total Project	5	0	1	2	0	4	6	18

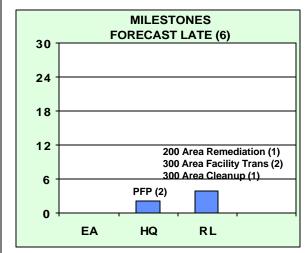
#### MILESTONE EXCEPTIONS







#### REMAINING SCHEDULED



These charts provide detail by project and milestone level / type for milestones

- Completed Late
- Overdue
- Forecast Late
- Detailed information can be found in the individual project sections

#### SAFETY OVERVIEW

The focus of this section is to document trends in occurrences. Improvements in these rates are due to the efforts of the PHMC workforce as they implement the Integrated ES&H Management System (ISMS), work towards achieving Voluntary Protection Program (VPP) "star" status, and accomplish work through Enhanced Work Planning (EWP). Safety and health statistical data is presented in this section.

#### Significant Safety and Health Events

#### **PHMC Level**

**Occupational Safety & Health Administration (OSHA) Recordable Case Rate:** The FH Team OSHA Recordable Rate is stable at the current baseline of 1.5 cases per 200,000 hours. DOE Comparison rates on all charts have been updated to Calendar Year 2001 data.

**Lost Away Workday Case Rate:** The current safe work hour count for the FH Team is 3,165,976 hours. The term Lost Away Workday has been replaced per OSHA definition with "Days Away From Work (DAFW)" and will appear on all applicable charts and graphs published in this report. The FH Team DAFW Case Rate appears stable at the current baseline, with zero cases the past five months. Two more months below average will be a statistically significant decrease.

**DOE Safety Cost Index:** The DOE Safety Cost Index has been below average for the past six months. A significant decrease will be achieved in April, if the April 2002 data point falls below the 7.6 cents per hour average.

#### Subproject Level

The **Plutonium Finishing Plant (PFP)** subproject has accumulated 320,020 safe hours. The FY 2002 OSHA Recordable Case Rate remains stable at the current baseline average of 2.4 cases per 200,000 hours worked. The DOE Safety Cost Index has been below average for ten of the past eleven months, a statistically significant decreasing trend.

The **300 Area Facility Transition** (WBS 3.1.6) subproject (formally called the River Corridor Project) achieved 287,876 safe work hours. The OSHA Recordable Case Rate remains stable at the current baseline average of 1.9 cases per 200,000 hours worked. The DAFW Case Rate has been zero for five consecutive months. Two more months at this level will be a statistically significant decrease.

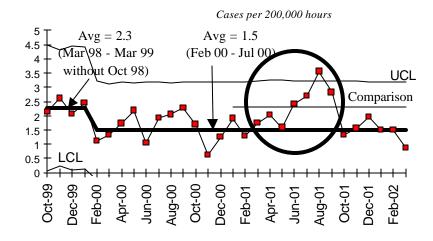
The **Spent Nuclear Fuel (SNF) Project** has achieved 4,304,518 safe work hours. The FY 2002 OSHA Recordable Case for FY 2001 through FY 2002-to-date has been favorable and has had a statistically significant reduction during the year. The chart has been rebaselined to an average rate of 1.0 cases per 200,000 hours worked.

The **200 Area Materials and Waste Management** (WBS 3.3.2) subproject (formally called the Waste Management Project) has achieved 3,517,197 safe work hours. For four of the past five months, the OSHA Recordable Case Rate has been zero. The zero value is one standard deviation below the baseline average of 2.0 and, therefore, a statistically significant decrease.

Due to space constraints, FY 1996 through FY 1998 data is not portrayed on the following graphs.

#### Total OSHA Recordable Case Rate



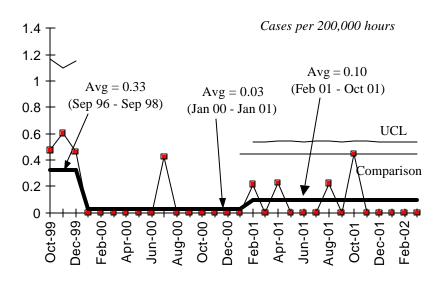


FY 2001 = 2.0 FY 2002 to date = 1.5 DOE Complex Comparison Average = 2.3 (CY01)

The OSHA Recordable Case Rate appears to have returned to the previous baseline of 1.5 cases per 200,000 hours. Fluor Hanford held a "Safety Summit" in January 2002 and is implementing plans developed during the Summit. The Fluor Global Services goal is 0.9. The Department of Energy complex wide rates have been updated for CY 2001 data and are used as comparative data on these charts.

#### OSHA Days Away from Work Case Rate

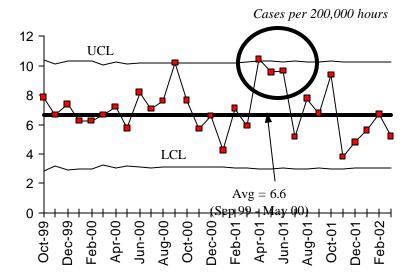




FY 2001 = 0.05 FY 2002 to date = 0.07 DOE Complex Comparison Average = 0.45 (CY01)

The current safe work hour count for the FH Team is 3,165,976 hours. A case from December 2001 has received days away from work in CY 2002. As this case occurred in the previous calendar year, the classification of the case remains unchanged due to the new OSHA reporting requirements. However, for Fluor corporate reporting purposes, the safe hours count has been reset to this case.

#### FIRST AID CASE RATE



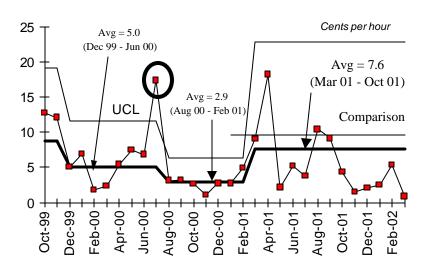
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First Aid Rate undergoes seasonal cycles. Increases occur in warmer weather due to insect and animal encounters, and due to wind related minor injuries. Such an increase did occur this past summer. Hanford is especially susceptible to wind borne debris injuries due to the site wildfire in June 2000. First Aid case rate has remained relatively stable, a good indicator that injuries are not being under-reported.

Fiscal year calculations are not included as DOE does not publish a comparison rate, and comparisons of partial fiscal year data to prior years would not be appropriate due to the cyclical trend in the data.

#### **DOE SAFETY COST INDEX**





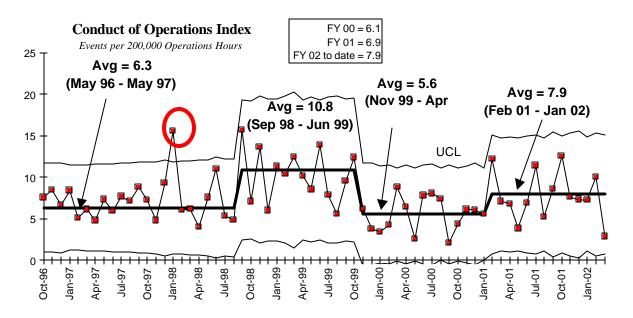
FY 2001 = 5.9
FY 2002 to date = 2.8
DOE Complex Comparison
Average = 9.7 (CY01)
The new baseline average was
further modified for growth in
restricted workdays on cases
within the baseline. The current
performance is below DOE
average, and the historical 8.0
goal for this indicator.

Current Calendars Year data continue to be corrected as further days accumulate on any work restrictions or days away from work.

#### **CONDUCT OF OPERATIONS**

New information for October 2001 placed the data above the Upper Control Limit from the 5.6 baseline. Since there had already been one signal of increase, this new signal was used as justification for establishment of a higher baseline.

The current month does tend to be artificially low as it can take up to 45 days to assign a root cause to an occurrence report, and the majority of the event types in the index are root cause generated.



#### Breakthroughs / Opportunities for Improvement

#### **Breakthroughs**

**Permit By Rule Treatment at 300 Area TEDF** 3/4 FH investigated the potential to treat limited categories of liquid non-radioactive hazardous wastes using the existing capabilities of the 300 Area TEDF by applying a permit exclusion available within the waste regulations. Treatment of hazardous wastes at TEDF could provide a low-cost option for disposal of some wastes currently sent off-site. While initial implementation activities are planned through the remainder of FY 2002, full implementation will be delayed to FY 2003 due to funding constraints.

**Monolithic Removal of 327 Hot Cells** ¾ To support accelerated 300 Area closure, RC is integrating decommissioning and demolition with deactivation activities where practical. Intact removal of the 327 hot cells appears to be technically feasible, to have potentially significant ALARA benefits, and results in schedule/cost reduction. Certification that the hot cells can be disposed of as non-Transuranic waste is key to adopting monolithic removal as the technical baseline. In support of this initiative, RC was successful in obtaining Accelerated Site Technology Deployment (ASTD) funding (\$935K) to purchase insitu characterization instruments that will lead to the eventual Low Level Waste certification. Procurement documents have been prepared for four instrument systems that will be used to locate, identify, and quantify residual contamination in the hot cells. Suppliers have been authorized to begin constructing two of the systems.

**Waste Receiving and Processing (WRAP) Facility low-level waste glovebox line modifications** Modification of the WRAP low-level waste glovebox line to allow TRU waste processing continues. This modification is being funded in part by EM-50 and will increase the capacity, flexibility, and reliability of the WRAP facility. Project completion is scheduled for the 2nd quarter of FY 2003; future status reports will be provided as project completion nears.

**SNF Stinger Redesign** — The stingers used on the manipulators had a failure rate of only 1.75 MCOs of fuel processed. Cooperation between SNF Project Engineers and the engineering lab has led to a modified stinger design that results in a life extension of five to six times the original rate, and about a one million dollar cost avoidance for parts alone (not counting production interruptions).

**Elimination of "End of Batch" Requirement** — Successful agreement with DOE-RL has led to the elimination of the "End-of Batch" accountability requirement at SNF. This action has reduced the production time for "fuel into baskets" by about ten percent, or four hours per MCO.

**Shipment Container Certification** 3/4 The Department of Energy Albuquerque is working to certify the Safekeg container that will enable the Plutonium Finishing Plant (PFP) to initiate shipments to California's Lawrence Livermore National Laboratory (LLNL) that will count as de-inventory. Personnel from the Kansas City DOE Plant and Los Alamos National Laboratory (LANL) will be at Hanford, May 14 to certify PFP as a Safekeg user.

**Virtual Knowledge Center (VKC) Project Status** ¾ The VKC project provides a suite of technologies that allows simple and easy access to information from a multitude of databases and systems through a portal. It includes electronic signatures, electronic workflow, electronic records management, electronic document management, and portals for searching for documents/records. FH procurement negotiated a 4-year lease to buy agreement for the Virtual Knowledge Management Open Text software licenses at a cost avoidance of \$1,441,182 over the incremental purchase of the same number of licenses.

#### **Opportunities for Improvement**

**Conduct of Operations Improvement Initiative** — RC has essentially completed the activities identified in the Conduct of Operations Improvement Plan. Project directors provided a summary review of progress to the RC Vice President at the two-, four-, and six-month milestones. The six-month status meeting was held on February 7, 2002. The facilities are completing program documentation to build a Conduct of Operations Sustain and Maintain Plan to be completed throughout the remainder of the year.

**SNF Project Equipment Reliability / KW Fuel Production** — Equipment reliability continues to be a major factor in the production and processing of fuel at KW. The current average processing time is 64.1 working hours, 19.1 working hours over the required target processing time of 45 working hours. Process improvements are being implemented. The equipment reliability issue is being addressed through the SNF Project Availability Assessment Document (SNF-9273). This assessment plan was presented to DOE-HQ EM-40 representatives and provides a plan of action to solving the equipment reliability. Ninety-five percent of the spares identified during the assessment have been integrated into the SNF Spare Parts program.

**Flowmeter** 3/4 SNF engineers have identified the replacement for the magnetic flowmeter to an ultrasonic flowmeter used for the P-2 pump. This will allow the production to regain wash time by reducing it from 15 minutes to between five and ten minutes in the Primary Clean Machine (PCM). This replacement and testing is expected to be complete by the middle of May 2002.

**Processing Improvement** — Currently, the PFP Stabilization & Packaging Equipment (SPE) team is exploring improving processing efficiency through modifying the material processing time and post stabilization test sequence. Results of this effort are now expected in late June.

**Life Cycle Cost Savings** ¾ PFP plant management in conjunction with Pacific Northwest National Laboratory (PNNL), Protection Technology Hanford (PTH), and RL presented a new path forward to DOE-HQ that would allow the PFP to stabilize nuclear material under International Atomic Energy Agency (IAEA) Safeguards without direct IAEA involvement. This new idea, requiring approval by both the United States State Department and the IAEA, will result in significant economic life cycle savings. A formal letter from the Nuclear Material Stabilization Project recommending this option was transmitted to RL March 21′ 2002.

**Two Technologies Proposed to Support Life Cycle Cost Reductions** 3/4 Analytical Services has proposed two technologies to support life cycle cost reductions for Hanford's high-level waste tanks mission acceleration initiative. One is clean salt (sodium nitrate) removal before waste treatment (sodium nitrate is a high percentage by volume in the waste tanks) and the other is Chromatographic Retrieval of wastes, which if proven, could selectively remove various constituents through successive water washes. Both have been demonstrated in the laboratory and were selected by CHG as two of the top ten alternatives for saving money and time in waste treatment. Further evaluation will be done to see if these and/or other technologies warrant funding for planned deployment in 2005. The Tank Focus Area has also requested a proposal be made to the Office of Science and Technology for the second of these technologies.

**Permit Condition Compliance Tracking System** 3/4 Work was initiated March 26, 2002, to build a new data system tool for FH staff to track operational compliance with Hanford Facility RCRA Permit conditions. This initiative, which will be supported by Lockheed Martin Information Technologies (LMIT), is based on the adaptation and application of LiveLink system software within the VKC Project. The current schedule calls for startup of a pilot demonstration at the Waste Receiving and Process (WRAP) and Central Waste Complex (CWC) facilities by June 1, 2002.

**Controlled Document Issued in Compact Discs (CD) Format** 3/4 Controlled Document Management issued controlled CDs of the complete annual rewrite of the PFP Final Safety Analysis Report. This is the first distribution of a controlled document in CD form.

**Criticality Safety Representative (CSR) Oral Examination Boards (OEB)** 3/4 An issue with the CSR OEB was addressed this month. There are at least 11 separate course numbers for the CSR OEB. The Criticality Safety Center of Expertise has recommended that these OEBs use a single site-wide number for all boards. The initiative has been submitted to the facility points Of Contact and CSR's for concurrence.

**Hazardous Energy Control (HEC) procedure** ¾ Training personnel are supporting the FH initiative to develop a single Hazardous Energy Control (HEC) procedure for FH facilities and projects. A presentation of training implementation options was given to the Training Center of Expertise (TCOE). Feedback from the TCOE members supported a "train-the-trainer" option. Training would develop a course for the facilities trainers and train them in its use. The facility trainers would then conduct the update training. The implementation method of choice has been proposed to the HEC Team.

#### ISSUES

Accelerated schedule for Pressurized Water Reactor (PWR) fuel assembly shipments — Meeting the accelerated 324 schedule for five PWR fuel assembly shipments by September 30, 2002 vs. December 2002 necessitates recovering lost time. FH is responding to the delays in design and delivery of critical components by developing a schedule recovery plan to maintain shipment of five PWR fuel assembly shipments by September 30, 2002. This preliminary schedule and single Readiness Assessment (RA) approach has been presented to RL for consideration, and FH is now preparing a revised RA plan of action.

**TPA** milestone date of March 2002 for Fuel Transfer System (FTS) construction completion missed — Many aggressive efforts have been taken to establish June 1, 2002 as the recovery date. The construction activity for FTS is not on the critical path for the November 30, 2002 KE to KW fuel move; consequently, fuel movement activities remain on schedule.

**Equipment reliability is a challenge for sustaining Spent Nuclear Fuel (SNF) movement** — Continued equipment failures may negatively impact meeting fuel movement commitments. Several corrective actions are being implemented to help minimize the impact.

Shippingport fuel movement schedules and readiness to receive K Basin sludge are impacted by the Operations Readiness Review (ORR) delay ¾ A recovery plan has been developed and implemented. Key elements include enhanced staffing, increased matrixed support, and the use of onsite and offsite mentors. A management self-assessment will be conducted, starting April 29, 2002 followed by a declaration of readiness for contractor operational readiness review to start May 14, 2002.

There is no alternative moisture measurement system in place to support processing of plutonium alloys and impure oxides — Completion of solutions and polycube processing and stabilization activities will be delayed approximately two and one-half months. Three RL approved Thermogravimetric Analyzers (TGA) for use in 234-5Z have been procured and delivered. The Acceptance Test Procedure (ATP) and Standard Startup Review are scheduled to begin in early April.

**Lack of MLLW Treatment Capacity** — ATG's financial status has adversely impacted production rates. FH is currently working with the ATG Trustee to accomplish limited treatment and establish a basis for future sustained treatment. FH is also evaluating the use of a DOE Broad Spectrum contract while continuing onsite treatment/disposal efforts.

**Buried TRU Drum Retrieval Behind Schedule** — The Retrieval Document Safety Analysis (DSA) was submitted, and discussions with DOE-RL are ongoing. WMP is working to resolve the DSA comments, and incorporate the outcome in the Retrieval Project Plan. Limited progress has been made on project activities (NEPA, air permitting, and equipment design) due to FY2002 funding uncertainties.

#### **EM CORPORATE PERFORMANCE MEASURES**

	FYTD	FYTD	Proposed FY02
Performance Measures	Planned	Actual	Commitment
Facilities Deactivated/Decommissioned	1 10111110	110 00001	
Deactivated (RC06)	1	0	0
Deactivated (RS01)	0	0	1
Deactivated (SS02)	0	2	4
Total Facilities Deactivated	1	2	5
Decommissioned (SS02)	0	13	4
TRansUranic (TRU) Waste (CP02)			
Stored - total inventory (m <sup>3</sup> )	16.818	16.955	n/a
Disposed (m <sup>3</sup> shipped to DOE site)	0	0	n/a
High Level Waste (CP02)			
Stored - total inventory (m <sup>3</sup> )	2	2	n/a
Treated (m <sup>3</sup> )	0	0	n/a
Mixed Low Level Waste (CP02)			
Stored - total inventory (m <sup>3</sup> )	7,339	7,349	n/a
Treated (m <sup>3</sup> )	18	108	n/a
Disposed (m <sup>3</sup> )	91	78	268
Low Level Waste (CP02)			
Stored - total inventory (m <sup>3</sup> )	299	299	n/a
Disposed (on-site/commercial) (m <sup>3</sup> )	3.274	1,450	4.626
Material Stabilized (CP03)			
Plutonium Oxide (cans)	0	0	n/a
Plutonium Solution (L)	675	2,110	n/a
Plutonium Residue (kg)	281	592	898
SNF Moved to Dry Storage (RS03)			
Heavy Metal (MT)	206	122	597
Waste Site Excavations (RC01 - BHI)			
Waste Site Excavations	5	3	10
Technology Deployments	0	0	1
Pollution Prevention			
HAZ (MT)	17	5	
SAN (MT)	653	123	653
LLW (m <sup>3</sup> )	198	43	198
MLLW (m <sup>3</sup> )	112	29	112
Cleanup/Stabilized Waste Avoided			
FY2002 planned baseline amount (m <sup>3</sup> )	1,977	1,974	1,977

For deviations +/- 10%, see the following projects sections: **RCR Facilities deactivated** (River Corridor); **MLLW Treated, MLLW Disposed, and LLW Disposed** (Materials & Waste Management); **Plutonium Solutions, and Plutonium Metal/Alloys** (Plutonium Finishing Plant); **Heavy Metal** (Spent Nuclear Fuels); **Waste Site Excavations** (See BHI section).

NOTE: Pollution prevention/Waste Minimization are DOE-HQ managed National Programs, and as such are not addressed in the individual project sections of this report.

#### **EM LIFE CYCLE PERFORMANCE MEASURES**

EM Life Cycle Performance Measures FY 2002 thru FY 2046														
Performance Measures	Total	CP01	CP02	CP03	RC01	RC02	RC03	RC04	RC06	RS01	RS02	RS03	SS01	SS02
Facilities Deactivated/Decommissioned														
Facilities Deactivated	776	105	17	57	1	59	4		67	19		38		409
Facilities Decommissioned	1,358	582		57	219	146		1	1	147	13			192
TRansUranic (TRU) Waste														
Disposed (m <sup>3</sup> shipped to DOE site)	24,680		24,680											
High Level Waste														
Treated (m <sup>3</sup> )	56,960		56,960											
Mixed Low Level Waste														
Treated (m <sup>3</sup> )	36,200		36,200											
Disposed (m <sup>3</sup> )	70,700		70,700											
Low Level Waste														
Disposed (on-site/commercial) (m <sup>3</sup> )	107,600		107,600											
Material Stabilized														
Plutonium Oxide (cans)	5,592			5,592										
Plutonium Solution (L)	2,691			2,691										
Plutonium Residue (kg)	2,716			2,716										
SNF Moved to Dry Storage														
Heavy Metal (MT)	2,107								2.3			2,105		
Waste Site Excavations														
Waste Site Excavations	1,270	694			458	101				14	2			1

The above represents DOE-RL's lifecycle metrics (FY 2002 – 2006) by Project Baseline Summary (PBS).

#### **UPCOMING PLANNED KEY EVENTS**

The following key events are extracted from the authorized baseline and are currently expected to be accomplished during the next several months. Most are Enforceable Agreement (EA), DNFSB or DOE-HQ Milestones.

#### **300 Area Remediation**

**Spent Nuclear Fuel (SNF) Transfer** — Decontaminate initial NAC-1 Cask and ISO container by April 29, 2002 (This activity continued to slip due to subcontractor delays; a recovery plan is in place).

**Effluent Tank**— Replace effluent tank by April 2002.

**Treated Effluent Disposal Facility (TEDF) Database Servers** — Upgrade TEDF database servers by April 2002.

**324/327 Buildings** — Complete 26.5 percent remaining deactivation scope by June 30, 2002.

**300 Area Miscellaneous Contaminated Facilities** — Shutdown 333 Building fire protection system by September 2002 (This activity delayed due to higher priority work).

**Contract Transition** — Support transfer of FH scope to River Corridor Closure Contractor (RCCC) on September 30, 2002.

#### **Spent Nuclear Fuel**

**Fuel Movement** — Continue removal and processing of SNF.

**Fuel Movement** — Continue implementing process improvements to decrease time necessary to load and process fuel in MCOs.

**ISA Readiness Assessment** — Conduct 200 Area ISA Readiness Assessment starting April 22, 2002.

**ISA Pad Fuel Receipt** — Initiate Neutron Radiography Facility (NRF) TRIGA fuel transfer to 200 Area ISA Pad in May 2002.

**SWS Design** — Complete SWS design in May 2002.

**FTS Construction** — Complete fabrication of FTS equipment for KE and KW Basins by May 1, 2002.

**SWS Construction** — Begin fabrication of SWS KE in-basin equipment by May 15, 2002.

**SWS Construction** — Release contract for SWS in-basin equipment by May 15, 2002.

**FTS Construction** — Complete FTS construction acceptance testing by June 1, 2002.

**SWS Construction** — Receive cask and container for sludge in August 2002.

**SWS Construction** — Complete SWS construction by September 30, 2002.

#### **200 Area Remediation**

**200 Area Shutdown Facilities** — Transfer PUREX and B Plant facilities from BHI to FH by June to allow initiation of equipment removal. Delayed from April due to transfer negotiations.

**Equipment Disposition Project** — Ship the Ion exchange columns by August 2002.

#### 200 Area Materials & Waste Management

**Accelerate Readiness to Receive SNF K Basin Sludge** — 1) Implement a recovery plan for the Operational Readiness Review (ORR) for movement of Shippingport (PA) fuel, 2) Support activities to receive and store K Basin sludge, and 3) Accelerate T Plant Canyon cell cleanout.

**MLLW Treatment** — Continue characterization and direct disposal activities. These include PFP High Efficiency Particulate Air filter and T Plant Ventilator unit disposition, both of which should conclude in May 2002.

**Waste Isolation Pilot Plant Waste Acceptance Criteria (WIPP WAC) Implementation** —The proposed revision of the WIPP WAC is required to be implemented by May 17, 2002. The revision requires significant changes in the non-destructive assay and transportation activities of the TRU Program affecting both WRAP and PFP TRU waste processing. Contractual direction is required from RL. Draft revisions of the affected Hanford TRU documents/procedures have been transmitted to Carlsbad Field Office (CBFO) for review/approval.

**TRU Waste Retrieval** — Receive the Safety Evaluation Report from RL approving the Documented Safety Analysis (DSA) by May 3, 2002.

**Plutonium Finishing Plant (PFP) Support** — Continue to support residues processing with shipment of the new Sand, Slag and Crucible waste stream through FY 2003.

**300 Area Cleanup Support** — Support the removal of a Curium/Americium source from the 327 Facility. Continue support to the 324 Fuels Removal Project.

**Waste Encapsulation and Storage Facility (WESF) Operations** — Continue Beneficial Uses Shipping System (BUSS) cask lay-up. Complete removal of chemical lines in the Aqueous Makeup (AMU). Support the accelerated capsule disposition initiative.

**Liquid Waste Processing** — Continue groundwater processing at the 200 Area ETF after completion of 242-A Cold Run Campaign. Two 242-A evaporator campaigns are scheduled for late summer.

#### **Plutonium Finishing Plant**

**Polycube processing** 3/4 Initiate startup of polycube processing in April.

**Solutions processing** — Complete solutions stabilization and packaging by August 31, 2002.